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10/591,020	08/29/2006	Dan Li	CU-5023 RJS	4827
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/591,020

Applicant(s)

LI ET AL.

Examiner

ADNAN BAIG

Art Unit

2416

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/88)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 2/2/2009 have been fully considered but they are not persuasive.

In regards to applicant's remarks concerning negotiating bandwidth of a Data Communication Channel, the reference of records teaches the allocation and management of overhead bytes (intersection) in the receiver received through an auxiliary message from a transmitter once a negotiation of overhead bytes (bandwidth) is confirmed. **Col. 1 lines (60-67) - Col. 2 lines (1-13)**. Referring to Fig. 8 and Fig. 9, Giorgetta illustrates the frame structure of the auxiliary message received where negotiation is initiated by allocating **(Col. 9 see lines 47-58)** the selected overhead bytes used for synchronization and messaging. The numeral 2 indicating the offer from the transmitter of which overhead bytes will contain the communication.

(Referring to Fig. 9, the receiver reads the numeral 2's or second group of overhead bytes as the offer of negotiation and an intersection is obtained where the receiver is capable of managing and receiving data on all overhead bytes locations, **(Col. 12 see lines 19-21)**).

(Referring to Fig. 11A, Giorgetta illustrates a data communication channel has been negotiated between the transmitter and receiver in step 210, where the resulting overhead byte reserved is allocated based on the negotiation message received from the transmitter and is used as a data communication channel, **Col. 13 see lines 23-37)**.

In regards to applicants remarks concerning claim 1, the reference of record clearly shows two network elements **Col. 2 lines 12-37** (Giorgetta teaches a transmitter and receiver **(two network elements)** communicating a first channel configuration where auxiliary messages consisting of overhead bytes are allocated).

Both network elements perform the negotiation of overhead bytes on each ones end for circumstances of bandwidth management **Col. 1 lines 44-50**, where an auxiliary communication link which is the data communication channel is established once both network elements have selected and managed their received negotiated overhead bytes. All the elements of Claim 1 are taught by Giorgetta

performing a first communication channel configuration by two network elements respectively, **Col. 2 lines 12-37** (Giorgetta teaches a transmitter and receiver **(two network elements)** communicating a first channel configuration where auxiliary messages consisting of overhead bytes are allocated). **Col. 1 lines 44-50** informing, by the network element at transmitting end of the DCC, the network element at receiving end of the DCC of a DCC negotiation message via the DCC,

Col. 1 lines (60-67) - Col. 2 lines (1-13). (Referring to Fig. 8 and Fig. 9, Giorgetta illustrates the frame structure of the auxiliary message received where negotiation is initiated by allocating the selected overhead bytes used for synchronization and messaging. The numeral 2 indicating the offer from the transmitter of which overhead bytes will contain the communication).

after receiving the DCC negotiation message, the network element at the receiving end comparing the overhead bytes contained in the DCC negotiation message with

overhead bytes available to the network element at the receiving end, to obtain an intersection, which is are overhead bytes, for constructing a DCC, available to both the network elements, wherein the overhead bytes as bandwidth of the DCC are used to perform a second DCC configuration in the same order, so as to establish the DCC.

Col. 9 see lines 47-58

(Referring to Fig. 9, the receiver reads the numeral 2's or second group of overhead bytes as the offer of negotiation and an intersection is obtained where the receiver is capable of managing and receiving data on all overhead bytes locations, Col. 12 see lines 19-21).

(Referring to Fig. 11A, Giorgetta illustrates a data communication channel has been negotiated between the transmitter and receiver in step 210, where the resulting overhead byte reserved is allocated based on the negotiation message received from the transmitter and is used as a data communication channel, Col. 13 see lines 23-37).

In regards to applicant's remarks concerning claims 2-11, the reference of record teaches all the elements of claim 1 as above. Giorgetta teaches a transmitter and receiver **(two network elements)** communicating a first channel configuration where auxiliary messages consisting of overhead bytes are allocated **see Col. 2 lines 12-37**. Both network elements perform the negotiation of overhead bytes on each ones end for circumstances of bandwidth management **Col. 1 lines 44-50**, where an auxiliary communication link which is the data communication channel is established once both

network elements have selected and managed their received negotiated overhead bytes. (Referring to Fig. 11A, Giorgetta illustrates a data communication channel has been negotiated between the transmitter and receiver in step 210, where the resulting overhead byte reserved is allocated based on the negotiation message received from the transmitter and is used as a data communication channel, **Col. 13 see lines 23-37**).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Giorgetta (of record).

Regarding Claim 1, Giorgetta discloses a method for negotiating bandwidth of a Data Communication Channel automatically, comprising the steps of:

performing a first communication channel configuration by two network elements respectively, **Col. 2 lines 12-37** (Giorgetta teaches a transmitter and receiver (**two network elements**) communicating a first channel configuration where auxiliary messages consisting of overhead bytes are allocated). **Col. 1 lines 44-50**

informing, by the network element at transmitting end of the DCC, the network element at receiving end of the DCC of a DCC negotiation message via the DCC,

Col. 1 lines (60-67) - Col. 2 lines (1-13). (Referring to Fig. 8 and Fig. 9, Giorgetta illustrates the frame structure of the auxiliary message received where negotiation is initiated by allocating the selected overhead bytes used for synchronization and messaging. The numeral 2 indicating the offer from the transmitter of which overhead bytes will contain the communication).

after receiving the DCC negotiation message, the network element at the receiving end comparing the overhead bytes contained in the DCC negotiation message with overhead bytes available to the network element at the receiving end, to obtain an intersection, which is are overhead bytes, for constructing a DCC, available to both the network elements, wherein the overhead bytes as bandwidth of the DCC are used to perform a second DCC configuration in the same order, so as to establish the DCC.

Col. 9 see lines 47-58

(Referring to Fig. 9, the receiver reads the numeral 2's or second group of overhead bytes as the offer of negotiation and an intersection is obtained where the receiver is capable of managing and receiving data on all overhead bytes locations, Col. 12 see lines 19-21).

(Referring to Fig. 11A, Giorgetta illustrates a data communication channel has been negotiated between the transmitter and receiver in step 210, where the resulting overhead byte reserved is allocated based on the negotiation message

received from the transmitter and is used as a data communication channel, Col. 13 see lines 23-37).

Regarding Claim 2, Giorgetta discloses the method according to claim 1, comprising: sending a DCC connection command from the two network elements to the opposite network element via the newly configured DCC respectively; after receiving the DCC connection command, sending a DCC connection acknowledgement command from the two network elements to the opposite network element respectively. **See Col. 1 lines (60-65) – Col. 2 lines (1-50)** accomplishing establishment of the DCC after the two network elements receive the DCC connection acknowledgement commands, **(Referring to Fig. 11B, Giorgetta illustrates establishing the auxiliary communication link (DCC) at steps 224 after receiving the second information stream at step 220 (acknowledgement)).**

Regarding Claim 3, Giorgetta discloses the method according to claim 1, wherein the first communication channel configuration is performed in default configuration mode, **(Col. 25 lines 25-41 & Col. 8 lines 3-26)**

Regarding Claim 4, Giorgetta discloses the method according to claim 1, wherein each DCC of the network elements determines whether to perform the DCC bandwidth negotiation in accordance with the requirements of users, **(Col. 12 see lines 19-25).**

Regarding Claim 5, Giorgetta discloses the method according to claim 3, wherein the network elements return to the default DCC configuration state if the configured timer is expired at any step during the second DCC establishment process.

(Referring to table 9, Giorgetta illustrates a clock failure where the register is reset and default values are assigned from register 0x00A).

Regarding Claim 6, Giorgetta discloses the method according to claim 3, wherein both of the network elements at the transmitting and receiving ends of the DCC return to the default DCC configuration state if the preconfigured connected DCCs fails,

(Giorgetta teaches in the instance of a network failure, selected default settings are enabled), Col. 8 See lines 3-26.

Regarding Claim 7, Giorgetta discloses the method according to claim 3, wherein both of the two network elements perform the first DCC configuration by using one or more unused overhead bytes in a section overhead, **(Col. 2 see lines 22-28)** the one or more unused overhead bytes in the section overhead comprising: D bytes and other unused section overhead bytes, **(Col 5. step 12).**

Regarding Claim 8, Giorgetta discloses the method according to claim 1, wherein the DCC negotiation message comprises: overhead bytes and the order of the overhead bytes available to the transmitting end of DCC of the current network element,

Col. 1 lines (60-65) – Col. 2 lines (1-11). (Referring to Fig. 15, Giorgetta illustrates the order of D bytes available to the transmitting end of the network element).

Regarding Claim 9, Giorgetta discloses the method according to claim 7, wherein the D bytes are in an order from D1 to D12, **(Referring to Fig. 15, Giorgetta illustrates the D bytes in an order from D1 to D12 within the frame structure of the DCC configuration).**

Regarding claim 10, Giorgetta discloses the method according to claim 3, wherein during the second DCC configuration, the default DCC constructed by the default section overhead bytes is reserved, and the new DCC is constructed by using the newly-added section overhead bytes, **(Col. 25 lines 25-41 & Col. 2 lines 30-35) (Giorgetta discloses that in the default configuration, overhead bytes are reserved and stored in a memory location where they are followed through a line feed where a new DCC will be constructed).**

Regarding Claim 11, Giorgetta discloses the method according to claim 1, wherein the SDH/SONET section overhead bytes for constructing the DCC are overhead bytes selected from a group consisting of D1-D12 bytes and other unused section overhead bytes, wherein the section overhead bytes used in the network elements at both ends of the DCC are consistent with each other, **(Col. 5 Step 10 and 12) & (Col. 2 lines 24-25).**

(Referring to Fig. 5, Giorgetta illustrates a group consisting redundant bytes which serve as unused section overhead bytes).

(Referring to Fig. 6, Giorgetta illustrates that the section overhead bytes are always consistent in the network elements with the use of a frame structure).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADNAN BAIG whose telephone number is (571) 270-7511. The examiner can normally be reached on Mon-Fri 7:30m-5:00pm eastern Every other Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ADNAN BAIG/
Examiner, Art Unit 2416

/Huy D. Vu/

Supervisory Patent Examiner, Art Unit 2416